



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>ABNORMAL</b>

Area  
**GLENN LEROY MARTIN-TLD-GLENN TRANSPORT**

Machine Id  
**NAVISTAR 3019287**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>NL0001994</b>	NL0000881	---
Sample Date		Client Info		<b>29 Jan 2024</b>	11 Jan 2023	---
Machine Age	mls	Client Info		<b>375723</b>	237846	---
Oil Age	mls	Client Info		<b>61055</b>	39789	---
Filter Age	mls	Client Info		<b>61055</b>	39789	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>ABNORMAL</b>	NORMAL	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>51</b>	44	---
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	---
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	5	---
Lead	ppm	ASTM D5185m	>40	<b>9</b>	4	---
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

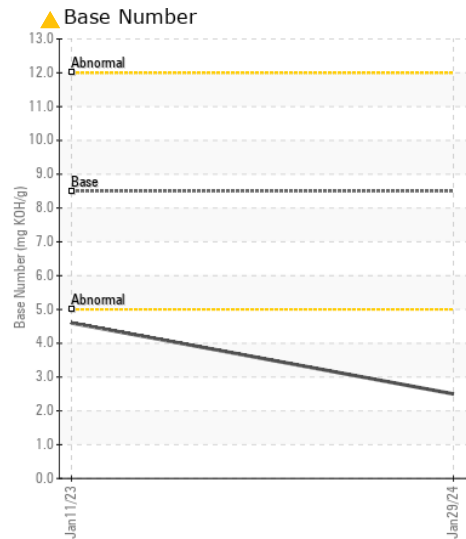
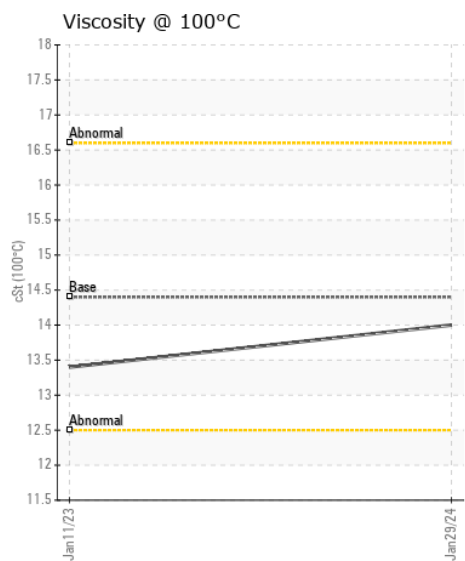
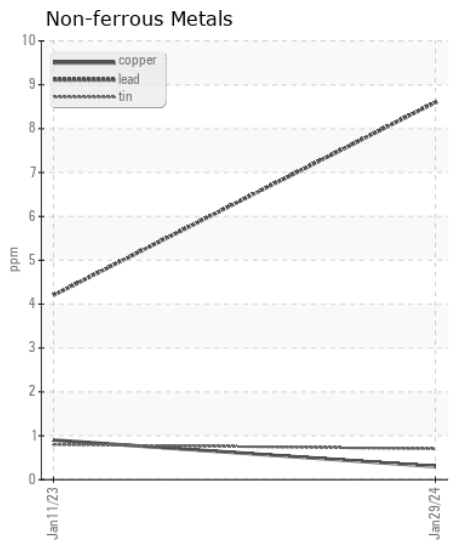
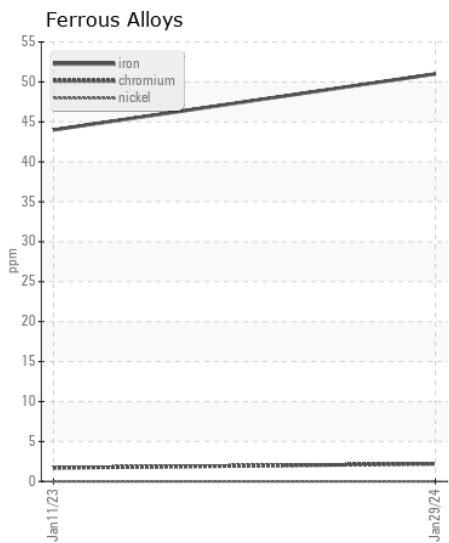
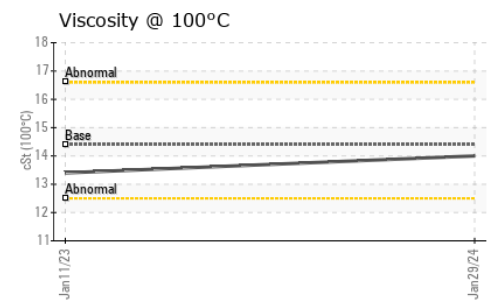
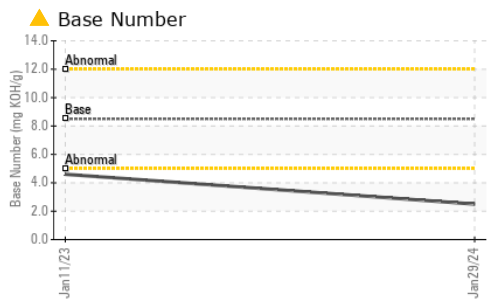
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>10</b>	7	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	4	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0.9</b>	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>14.1</b>	11.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>31.3</b>	24.4	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

## FLUID CONDITION

The BN level is low. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>158	<b>2</b>	1	---
Boron	ppm	ASTM D5185m	250	<b>19</b>	3	---
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	100	<b>69</b>	67	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	450	<b>923</b>	952	---
Calcium	ppm	ASTM D5185m	3000	<b>1069</b>	1113	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1062</b>	940	---
Zinc	ppm	ASTM D5185m	1350	<b>1300</b>	1263	---
Sulfur	ppm	ASTM D5185m	4250	<b>2568</b>	3033	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>33.2</b>	22.0	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>2.5</b>	4.6	---
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.0</b>	13.4	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : NL0001994  
**Lab Number** : 06082954  
**Unique Number** : 10870399  
**Test Package** : FLEET  
**Received** : 07 Feb 2024  
**Tested** : 08 Feb 2024  
**Diagnosed** : 09 Feb 2024 - Don Baldrige

**KIRK NATIONALEASE - SHOP 81 RM**  
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To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)